### Irrigation Audit Checklist

#### A. Project & Auditor Information

<table>
<thead>
<tr>
<th>Information</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection Date</td>
<td></td>
</tr>
<tr>
<td>Project Name</td>
<td></td>
</tr>
<tr>
<td>Project Address</td>
<td></td>
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<tr>
<td>Application Number</td>
<td></td>
</tr>
<tr>
<td>Irrigation Auditor Name</td>
<td></td>
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<tr>
<td>Irrigation Auditor Company</td>
<td></td>
</tr>
<tr>
<td>Irrigation Auditor Address</td>
<td></td>
</tr>
<tr>
<td>Irrigation Auditor Phone Number</td>
<td></td>
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<tr>
<td>Irrigation Auditor Email</td>
<td></td>
</tr>
</tbody>
</table>

Auditor Certified by EPA WaterSense program:

- [ ] Irrigation Association
- [ ] QWEL
- [ ] CLCA WMCP
- [ ] G3 Watershed Wise Professional
- [ ] Other EPA Certified_________________________

Note: For large projects or projects with multiple landscape installations (i.e. production home developments), an auditing rate of 1 in 7 lots or approximately 15% satisfies the audit requirement.
<table>
<thead>
<tr>
<th>Meter Type &amp; Location</th>
<th>Static Water Pressure</th>
<th>Manual Shutoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Customer Service Water Meter</td>
<td>PSI</td>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ Submeter</td>
<td></td>
<td>☐ No</td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Backflow Prevention</th>
<th>Master Valve</th>
<th>Flow Sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP AVB Anti-siphon DCVA</td>
<td>☐ Yes</td>
<td>☐ Yes</td>
</tr>
<tr>
<td></td>
<td>☐ No</td>
<td>☐ No</td>
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<tr>
<td>Location</td>
<td>Location</td>
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<td></td>
<td></td>
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<tr>
<td>Location</td>
<td></td>
<td>Connected to Master Valve? ☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressure Reducing Valve</th>
<th>Controller Type</th>
<th>Controller set to Establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes ☐ No</td>
<td>WBIC Soil</td>
<td>☐ Yes ☐ No</td>
</tr>
<tr>
<td>Location</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Mulch</th>
<th>Total Number of Active Stations</th>
<th>Irrigation Schedule Posted</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes ☐ No</td>
<td></td>
<td>☐ Yes ☐ No</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Hyrdozone Map kept with controller</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Yes ☐ No</td>
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</tbody>
</table>

<p>| Hyrdozone Map kept with controller        |                         |                              |</p>
<table>
<thead>
<tr>
<th>Hydrozone Number</th>
<th>Flow Rate (GPM or GPH)</th>
<th>Precipitation Rate (IPH)</th>
</tr>
</thead>
<tbody>
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<tr>
<td>Controller Station No.</td>
<td>SQ. FT.</td>
<td>Plant Type</td>
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</tbody>
</table>

Plant Type: Turf (T), High (H), Medium (M), Low (L), VL (VL)
Sun Exposure: Full (F), Mostly (M), Partial Sun (PS), Partial Shade (PSH), Full Shade (FSH), Mostly Shade (MSH)
Slope: None (N), Steep (S), Gentle (G)
Soil Type: Clay (C), Clay/Loam (CL), Loam (L), Sandy (S), Sandy/loam (SL)
Irrigation Method: Drip (D), Spray (S), Rotating Nozzles (RN), Rotor (R), Bubbler (B), Microspray (M)
Water Type: Potable (P), Recycled (R), Graywater (G), Stormwater (S)

Note: Zone Pressure taken at beginning (1), middle (2) and end (3) of audit
Note: Microspray does not comply with MWEO
# Distribution Uniformity Test (DU)

Catch-can Test Station Number______________    DU_______________
WM_____________ IE__________

DU (Condition of System) = Avg. of LQ/Avg. of DU
WM/TRM (Water Management Percentage also called Run Time Multiplier)
IE (Irrigation Efficiency) = DU*WM

<p>| | | |</p>
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</table>
## B. Audit Report

### Table 1 B. Audit Report

<table>
<thead>
<tr>
<th>Applicant: Write the Plan Sheet Number</th>
<th>Item: Description of Document</th>
<th>Reviewer: Pass</th>
<th>Reviewer: Fail/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>1. Separate landscape customer service water meter or private submeter has been installed as applicable:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>a. Non-residential projects: Greater than 1,000 sf landscape area</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>b. Residential projects: Greater than 5,000 sf landscape area</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>2. The irrigation audit report includes:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>a. System inspection</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>b. Inspect for leaks</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>c. System tune-up</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>d. Test the operating pressure of the irrigation system</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>e. Test to determine distribution uniformity</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>f. Test to determine precipitation rate of representative overhead irrigation valves</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>g. Confirm matched precipitation rates on valves with sprinkler heads, rotors and other emission devices</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>h. Report of any overspray or broken irrigation equipment</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>i. Report of overspray or run off that causes overland flow</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Applicant: Write the Plan Sheet Number</td>
<td>Item: Description of Document</td>
<td>Reviewer: Pass</td>
<td>Reviewer: Fail/NA</td>
</tr>
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<tr>
<td>□</td>
<td>j. Written recommendations to improve performance of the irrigation system</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>□</td>
<td>k. Preparation of an irrigation schedule, including configuring irrigation controllers with application rate, soil types, plant factors, slope, exposure and any other factors necessary for accurate programming</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>□</td>
<td>l. Other:</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
# C. Irrigation Equipment

**Table 2 C. Irrigation Equipment**

<table>
<thead>
<tr>
<th>Item: Description of Document</th>
<th>Reviewer: Pass</th>
<th>Reviewer: Fail/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>□  1. Irrigation equipment is installed (location, type and size) as shown in the approved plans:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  a. Automatic controller is ET-based or soil moisture-based and includes:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  I. Irrigation scheduling parameters</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  II. Hydrozone map</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  b. Sensors installed include rain, frost (if necessary) and wind sensors (if necessary)</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>□  c. Point of connection includes:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  I. Backflow prevention devices (if necessary)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  II. Manual shut-off valve (gate, ball, butterfly valve)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  III. Master shut-off valve</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  IV. Flow sensor for landscapes over 5,000 sf only</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  d. Valves (station)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  I. Flow rate (gpm)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  II. Application rates (in/hr)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  III. Design operating pressure:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  e. If static pressure is above or below required dynamic pressure of the system, pressure-regulating devices are installed</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>□  2. Main and lateral lines</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>□  3. Sprinklers</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Item: Description of Document</td>
<td>Reviewer:</td>
<td>Reviewer:</td>
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</tr>
<tr>
<td>a. No spray heads within 24 inches of non-permeable surface</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>b. Sprinkler heads and other emission devices have matched precipitation rates</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>c. Swing joints or other riser protection provided in high traffic areas and areas near hardscape</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Drip</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Emitter type and model match plan</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>f. Emitter location around plants</td>
<td>☐</td>
<td>☐</td>
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<td>g. Operating pressure checked</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>h. Valve matches plan, specifications, height, flow rate</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>i. Valve box properly set and identified</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>j. Filter installed and serviceable</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>k. Pressure regulator installed</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>l. Wire connections meet specifications</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>m. Proper pipe type and size installed</td>
<td>☐</td>
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<tr>
<td>n. Piping is anchored or buried as per specifications</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>o. Flush plugs are installed</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>p. Drip system activated by controller</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>q. Piping is anchored or buried as per specifications</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>r. Low volume irrigation (drip, drip lines, and bubblers) is used in mulched planting areas (no spray irrigation) and in areas less than 10 feet wide</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>s. Slopes greater than 25% are irrigated with an application rate not exceeding 0.75 inches per hour</td>
<td>☐</td>
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<tr>
<td>Applicant: Write the Plan Sheet Number</td>
<td>Item: Description of Document</td>
<td>Reviewer: Pass</td>
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<tr>
<td>7. Runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas are prevented</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>8. Check valves or anti-drain valves are installed to prevent low head drainage</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>9. Pressure regulating devices are used if the static water pressure at the connection of the public water system does not match the water pressure needs of the irrigation system</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>10. Check irrigation legend and manufacturer’s online data that sprinkler heads and other emission devices have matched precipitation rates</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>11. Confirm that swing joints or other riser protection are provided in high traffic areas and areas near hardscape</td>
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## D. Hydrozones

**Table 3 D. Hydrozones**

<table>
<thead>
<tr>
<th>Applicant: Write the Plan Sheet Number</th>
<th>Item: Description of Document</th>
<th>Reviewer: Pass</th>
<th>Reviewer: Fail/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>1. Match on the landscape plan and irrigation plan</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>☐</td>
<td>2. Are irrigated by valves with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use</td>
<td>☐</td>
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<td>☐</td>
<td>3. Trees are on separate valves</td>
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<td>☐</td>
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<td>☐</td>
<td>4. Biotreatment areas are on separate valves</td>
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## E. Water Features

**Table 4 E. Water Features**

<table>
<thead>
<tr>
<th>Applicant: Write the Plan Sheet Number</th>
<th>Item: Description of Document</th>
<th>Reviewer: Pass</th>
<th>Reviewer: Fail/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>1. Use recirculating water systems</td>
<td>☐</td>
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<tr>
<td>☐</td>
<td>2. Use recycled water if available</td>
<td>☐</td>
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# F. Irrigation Schedules

*Table 5 F. Irrigation Schedules*

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<tr>
<th>Applicant: Write the Plan Sheet Number</th>
<th>Item: Description of Document</th>
<th>Reviewer: Pass</th>
<th>Reviewer: Fail/NA</th>
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</thead>
<tbody>
<tr>
<td>☐</td>
<td>1. Irrigation schedules have been developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>☐</td>
<td>a. Irrigation scheduling is regulated by automatic irrigation controllers</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>☐</td>
<td>b. Overhead irrigation is scheduled between 8:00 p.m. and 10:00 a.m. unless weather conditions prevent it</td>
<td>☐</td>
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<tr>
<td>☐</td>
<td>c. Irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (e.g., CIMIS) or soil moisture sensor data</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>☐</td>
<td>2. The irrigation schedules have been developed to include the parameters used to set the automatic controller and are submitted for each of the following:</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>a. Plant establishment period</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>b. Established landscape</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>c. Temporarily irrigated areas</td>
<td>☐</td>
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<tr>
<td>☐</td>
<td>3. Each irrigation schedule includes the following that apply for each station ( valve):</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>a. Irrigation interval (days between irrigation)</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
### Applicant:

**Write the Plan Sheet Number**

<table>
<thead>
<tr>
<th>Item: Description of Document</th>
<th>Reviewer: Pass</th>
<th>Reviewer: Fail/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ b. Irrigation run times (hours or minutes per irrigation event to avoid runoff)</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>□ c. Number of cycle starts required for each irrigation event to avoid runoff</td>
<td>□</td>
<td>□</td>
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<tr>
<td>□ d. Amount of applied water scheduled to be applied on a monthly basis</td>
<td>□</td>
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<tr>
<td>□ e. Application rate setting</td>
<td>□</td>
<td>□</td>
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<tr>
<td>□ f. Root depth setting</td>
<td>□</td>
<td>□</td>
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<tr>
<td>□ g. Plant type setting</td>
<td>□</td>
<td>□</td>
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<tr>
<td>□ h. Soil type</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>□ i. Slope factor setting</td>
<td>□</td>
<td>□</td>
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<tr>
<td>□ j. Shade factor setting</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>□ k. Irrigation uniformity or efficiency setting</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

### G. Reviewer Comments

Credit: Developed by StopWaste and the Landscape Stakeholder Advisory Group